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G.L.

TITLE

SHAFT SEAL MECHANISM

BACKGROUND OF THE INVENTION

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Field of the Invention

The present invention relates to a shaft seal mechanism appropriately used for a rotating shaft or the like of a large size fluid machine, such as a gas turbine, steam turbine, compressor, water turbine, refrigerator, pump or the like.

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Description of the Prior Art

Generally, around a rotating shaft of a gas turbine, steam turbine or the like, a shaft seal mechanism is provided for reducing leakage of working fluid leaking to a lower pressure side from a higher pressure side. As one example of such a shaft seal mechanism, a leaf seal shown in 15 the Japanese laid-open patent application 2002-13647, for example, is known.

Fig. 6 is a cross sectional view of one example of a prior art leaf seal (shaft seal mechanism) of the kind mentioned above, wherein this leaf seal is seen on a cross section including an axis of a rotating shaft. In Fig. 20 6, numeral 1 designates a leaf seal and numeral 2 a rotating shaft. The leaf seal 1 is constructed such that a plurality of thin plates 3 of a flat shape having a predetermined size of a plate width in an axial direction of the rotating shaft 2 are arranged in layers in which a minute gap is provided between each of the thin plates 3 in a circumferential direction of 25 the rotating shaft 2 so that a thin plate assembly 9 of an annular shape is